

NYS Geospatial Advisory Council Meeting
December 12th, 2013
Federal Report

Sandy Supplemental funding for mitigation projects (1st round) appropriated \$4.2 million for USGS to collect coastal topography* and bathymetry for hurricane impact assessment and response support.

- Lidar acquisitions ([shown on this map](#)) began this fall in Dutchess, Orange and Ulster Counties (2,825 mi²). End date: 05/30/2015.
- In December lidar acquisition began for New York City (486.5 mi²) through the USGS Coastal and Marine Geology Program (CMGP). End date: 12/31/2014.
- Lidar acquisition is to begin (weather permitting) in Schoharie and southern Montgomery Counties that encompasses the Schoharie Creek watershed (951 mi²). End date: 05/30/2015. This Sandy response project is funded by the USGS Science Application for Risk Reduction (SAFRR) Project and the NY National Resources Conservation Service (NRCS).
- As part of the USGS and NOAA efforts to develop a Coastal National Elevation Database (CoNED), a high-resolution integrated topobathymetric model will be constructed for the Sandy impact region. The model will be based upon the best available lidar and bathymetry data with a spatial resolution of 1 and 3 meters depending on the quality of the lidar data (*The collection area is the NGDC_proposed_DEM layer on the [SeaSketch map](#)*).
- Sandy Supplemental is funding a \$9.7 million NOAA project for the collection and processing of topobathymetric lidar and digital camera imagery data extending from Myrtle Beach, SC to Long Island (*The collection area is the nsd_rsd_coverage_20131101 layer on the [SeaSketch map](#)*).

Sandy Supplemental funding for mitigation projects (2nd round) appropriated \$4.05 million for USGS to continue the collection of topographic lidar elevation data to support the assessment, recovery, and mitigation requirements for priority watershed and ecosystem analyses in the Hurricane Sandy impact area that were not fully addressed with the first round of funding. *There are no proposed projects in New York State.*

Additional information on the USGS Science Plan and Sandy supplemental funding (Disaster Relief Appropriations Act of 2013) in supporting national resilience to coastal hazards:

- [Press Release – Interior Announces \\$475 million in Hurricane Sandy Relief](#)
- [Department of the Interior - Hurricane Sandy Disaster Relief Supplemental Appropriations Spending Plan](#)
- [Publication – “Meeting the Science Needs of the Nation in the Wake of Hurricane Sandy—A U.S. Geological Survey Science Plan for Support of Restoration and Recovery”](#)
- [Press Release – Secretary Jewell Announces \\$162 Million for 45 Projects to Protect Atlantic Coast Communities from Future Storms](#)
- [List of the 45 Approved Protection Projects](#)
- [USGS Awarded Supplemental Funds to Support Hurricane Sandy Rebuilding](#)
- [Fact Sheet – “Hurricane Sandy Science Plan—New York”](#)
- [USGS Continues Response to Hurricane Sandy](#)

FEMA Region 2 is funding lidar acquisition in the Seneca watershed (3,040 mi²). Airborne acquisition set for fall 2013 and/or spring 2014. Currently 55% is collected. End date: 07/31/2014.

USGS FY14 Lidar Acquisition - The National Geospatial Program (NGP) submitted a pre-proposal for lidar acquisition for Essex County and parts of the NY Lake Champlain shoreline.

3D Elevation Program (3DEP) Draft Implementation Plan was released for review and comment to be returned to USGS by 02/12/14. [Reviewer Instructions](#), [Reviewer Comments](#).

NYS Lidar Inventory and **US Interagency Elevation Inventory** – efforts are being made to resolve discrepancies in collection footprints in the Mohawk valley and Delaware basin.

NYS Lidar Workgroup (formed 12/11) - current members:

- 1) Tim Ruhren – NYS Office of Information Technology Services, GIS Program Office
- 2) Tim Daly – NYS Department of Environmental Conservation
- 3) Andrew Kozlowski – NYS Geological Survey
- 4) Brian Bird – NYS Geological Survey
- 5) Craig Neidig – US Geological Survey
- 6) Douglas Freehafer – US Geological Survey
- 7) Cathy Crotty – USDA Natural Resources Conservation Service
- 8) Curtis Smith – Federal Emergency Management Agency

NY 2014 Urban Area project – Funding has been approved by the National Geospatial Intelligence Agency (NGA) for collecting imagery for New York City (\$60,000) and Albany and Buffalo (\$60,000).

A RFP for the 2013 Hurricane Sandy Coastal Resiliency Competitive Grants Program was announced by the Department of Interior. The program will award over \$100 million in grants for projects that reduce communities' vulnerability to the growing risks from coastal storms, sea level rise, flooding, erosion and associated threats through strengthening natural ecosystems that also benefit fish and wildlife. The proposal due date is Friday, January 31, 2014. For more information visit this [website](#).

*Note: All lidar collections will be elevation quality level 2, except for the Seneca collection at quality level 3.

Table 1.2. The five pre-defined topographic data Quality Levels (QLs)

Elevation Quality Levels (QL)	Source	Horizontal Resolution Terms			Vertical Accuracy Terms	
		Point Density	Nominal Pulse Spacing (NPS)	DEM Post Spacing	Vertical RMSEz	Equivalent Contour Accuracy
QL 1	LiDAR	8 pts/m ²	0.35 m	1/27 arc-sec ~1 meter	9.25 cm	1-ft
QL 2	LiDAR	2 pts/m ²	0.7 m	1/27 arc-sec ~1 meter	9.25 cm	1-ft
QL 3	LiDAR	1 – 0.25 pts/m ²	1 – 2 m	1/9 arc-sec ~3 meters	≤18.5 cm	2-ft
QL 4	Imagery	0.04 pts/m ²	5 m	1/3 arc-sec ~10 meters	46.3 cm – 139 cm	5 – 15 ft
QL 5	IFSAR	0.04 pts/m ²	5 m	1/3 arc-sec ~10 meters	92.7 cm – 185 cm	10 – 20 ft